

Docket No.: 043888-0286

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Customer Number: 53080  
 Masatoshi NAGAYAMA, et al. : Confirmation Number: 3002  
 Application No.: 10/730,049 : Group Art Unit: 1745  
 Filed: December 09, 2003 : Examiner: Martin, Angela J.  
 For: NON-AQUEOUS ELECTROLYTE RECHARGEABLE BATTERY

DECLARATION UNDER 37 C.F.R. § 1.132

Mail Stop Amendment  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

Sir:

I, Mr. Masatoshi Nagayama, declare as follows:

1. I received a Masters Degree of Engineering from the Graduate School of Engineering, Osaka City University.
2. My field of specialty is lithium ion secondary batteries.
3. Since 1993, I have been employed by Matsushita Battery Industrial Co., Ltd., a subsidiary of Matsushita Electric Industrial Co., Ltd.
4. I have been working in the field of research and development of lithium ion secondary batteries for the past 14 years.
5. I am a co-inventor of U.S. Patent Application Serial No. 10/730,049, NON-AQUEOUS ELECTROLYTE RECHARGEABLE BATTERY, filed December 9, 2003 (the present invention).
6. The range of Al present in the second positive electrode active material according to the present invention is  $0.001 \leq z < 0.02$ , whereas the range of Al present in the

**Application No.: 10/730,049**

second positive electrode active material according to Watanabe et al. (JP 2002-319398), is  $0.02 \leq w \leq 0.15$ .

7. At my direction and under my supervision, batteries were manufactured in the same manner as Example 1 of the present invention, except that ranges of Al in the second positive electrode active material were varied from 0.0005 to 0.025 to provide examples according to the present invention (Battery Nos. 1-6) and Watanabe et al. (Battery Nos. 7-10).

8. The initial capacity, capacity maintenance ratio and capacity recovery ratio of the above mentioned batteries were measured according to the method disclosed in the present application.

9. The data for the initial capacity, capacity maintenance ratio and capacity recovery ratio of the above batteries is shown in attached Table 1 of Exhibit A. A graphical representation of the initial capacity in mAh according to battery number of the above described batteries is shown in Fig. 1.

10. As illustrated in Exhibit A, batteries having a content of Al in the second positive electrode active material according to claim 1 of the present invention (Battery Nos. 1-6) exhibit greater initial capacity than batteries having a content of Al in the second positive electrode active material according to Watanabe et al. (Battery Nos. 7-10). As Fig. 1 clearly illustrates, when Al is less than 0.02, initial capacity is greater than when Al is at 0.02 or greater.

11. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements are made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issuing therefrom.

07年04月09日(月) 16時37分 発先: McDERMOTT

発信: ISHII PATENT

R:852 P.04

Application No.: 10/730,049

April 3, 2007  
Date

Masatoshi Nagayama  
Masatoshi Nagayama